

**COMMONWEALTH OF KENTUCKY**  
**BEFORE THE PUBLIC SERVICE COMMISSION**

**IN THE MATTER OF:**

<b>ELECTRONIC APPLICATION OF</b>	)	
<b>KENTUCKY UTILITIES COMPANY FOR AN</b>	)	
<b>ADJUSTMENT OF ITS ELECTRIC RATES, A</b>	)	
<b>CERTIFICATE OF PUBLIC CONVENIENCE</b>	)	
<b>AND NECESSITY TO DEPLOY ADVANCED</b>	)	
<b>METERING INFRASTRUCTURE,</b>	)	<b>CASE NO. 2020-00349</b>
<b>APPROVAL OF CERTAIN REGULATORY</b>	)	
<b>AND ACCOUNTING TREATMENTS, AND</b>	)	
<b>ESTABLISHMENT OF A ONE-YEAR</b>	)	
<b>SURCREDIT</b>	)	

**DIRECT TESTIMONY AND EXHIBITS OF**

**ANDREW D. TEAGUE**

**ON BEHALF OF**

**WALMART INC.**

**Filed: March 5, 2021**

**Contents**

I. Introduction ..... 1

II. Purpose of Testimony and Summary of Recommendations ..... 3

III. Proposal for Advanced Metering Infrastructure ..... 4

IV. Walmart's Access to Interval Data Through the Company's MyMeter Customer Portal ..... 5

V. Recommendations ..... 10

**Exhibits**

**Exhibit ADT-1:** Witness Qualifications Statement

**Exhibit ADT-2:** Kentucky Utilities Company's response to Walmart Supplemental Request 1-1

1 **I. Introduction**

2 **Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND OCCUPATION.**

3 A. My name is Andrew D. Teague. My business address is 2608 SE J Street, Bentonville,  
4 AR 72716. I am employed by Walmart Inc. ("Walmart") as Senior Manager, Energy  
5 Services.

6 **Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS DOCKET?**

7 A. I am testifying on behalf of Walmart.

8 **Q. PLEASE DESCRIBE YOUR EDUCATION AND EXPERIENCE.**

9 A. I received a Master's of Public Affairs in 2010 from the University of Indiana School  
10 of Public and Environmental Affairs. From 2011 to 2019, I was an energy management  
11 contractor working with the Army and the Air Force with primary duties in Texas and  
12 Oklahoma. My responsibilities ranged from energy conservation projects, on-  
13 installation utility billing, management of relationships with utility providers, and other  
14 day-to-day energy and utility operations. I joined the energy department at Walmart in  
15 February 2019 as Senior Manager, Energy Services. My Witness Qualifications  
16 Statement is attached as Exhibit ADT-1.

17 **Q. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY BEFORE THE**  
18 **KENTUCKY PUBLIC SERVICE COMMISSION ("COMMISSION")?**

19 A. No, I have not.

1       **Q.    HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY BEFORE OTHER**  
2       **STATE REGULATORY COMMISSIONS?**

3       A.    No, I have not.

4       **Q.    ARE YOU SPONSORING EXHIBITS IN YOUR TESTIMONY?**

5       A.    Yes. I am sponsoring the exhibits listed in the Table of Contents.

6       **Q.    PLEASE BRIEFLY DESCRIBE WALMART'S OPERATIONS IN**  
7       **KENTUCKY.**

8       A.    As shown on Walmart's website, Walmart operates 102 retail units and two distribution  
9       centers and employs over 27,000 associates in the Commonwealth of Kentucky. In  
10      fiscal year ending 2020, Walmart purchased \$506.1 million worth of goods and  
11      services from Kentucky-based suppliers, supporting over 40,000 supplier jobs.<sup>1</sup>

12      **Q.    PLEASE BRIEFLY DESCRIBE WALMART'S OPERATIONS WITHIN**  
13      **KENTUCKY UTILITIES COMPANY'S ("KU" OR "COMPANY") SERVICE**  
14      **TERRITORY.**

15      A.    Walmart has approximately 31 retail stores and related facilities that take electric  
16      service from KU. The majority of these facilities are served on the TODS (Time of Day  
17      – Secondary) Schedule with some smaller facilities taking service from the GS  
18      (General Service) Schedule.

19

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<sup>1</sup> <http://corporate.walmart.com/our-story/locations/united-states#/united-states/kentucky>

1    **II. Purpose of Testimony and Summary of Recommendations**

2       **Q.     WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

3       A.     The purpose of my testimony is to respond to KU's request for approval of an  
4             adjustment of the Company's electric rates and tariffs and for a Certificate of Public  
5             Convenience and Necessity ("CPCN") to deploy advanced metering infrastructure  
6             ("AMI") within its service territory as set forth in KU's Application ("Application")  
7             filed with the Commission on November 25, 2020. My testimony explains the  
8             perspective and needs of a large energy customer with multiple facilities in KU's  
9             service territory as it relates to the accessibility and functionality of AMI data.

10      **Q.     ARE THERE OTHER WITNESSES FILING TESTIMONY ON BEHALF OF**  
11             **WALMART IN THIS CASE?**

12      A.     Yes, Lisa Perry, Senior Manager, Energy Services, is also filing testimony on behalf of  
13             Walmart. Her testimony address the Company's requested revenue requirement, the  
14             requested return on equity, cost of service, revenue allocation, and rate design.

15      **Q.     PLEASE SUMMARIZE WALMART'S RECOMMENDATIONS TO THE**  
16             **COMMISSION.**

17      A.     Walmart's recommendations to the Commission are as follows:

- 18             1) The Commission should require the Company to include in its MyMeter  
19             platform the option for a customer to retrieve and download its energy usage  
20             interval data for multiple accounts, up to and including all accounts, through  
21             one datafile; and
- 22             2) The Commission should require the Company to make customer data accessible  
23             through means other than manual download.

1       **Q.    DOES THE FACT THAT YOU MAY NOT ADDRESS AN ISSUE OR**  
2       **POSITION ADVOCATED BY THE COMPANY INDICATE WALMART'S**  
3       **SUPPORT?**

4       A.    No. The fact that an issue is not addressed herein or in related filings should not be  
5       construed as an endorsement of, agreement with, or consent to any filed position.

6

7       **III. Proposal for Advanced Metering Infrastructure**

8       **Q.    HOW DOES THE COMPANY DESCRIBE ITS CURRENT METER**  
9       **INFRASTRUCTURE?**

10      A.    There are approximately one million electric meters and 340,000 gas meters between  
11      KU and Louisville Gas and Electric Company ("LG&E"), most of which are read  
12      monthly and manually by meter readers who must be in close physical proximity to a  
13      customer's meter to gather information. *See* Direct Testimony of Lonnie E. Bellar  
14      ("Bellar Direct"), p. 54, lines 10-16. With respect to the electric meters, approximately  
15      75% of them are electromechanical with an average age of 32 years. *See id.* at Exhibit  
16      LEB-3, p. 3. Since 2017, the Company has offered a pilot program known as the  
17      Advanced Metering Systems ("AMS") Opt-In Program that, as of 2018, had a customer  
18      cap of 10,000 electric meters each for KU and LG&E. *See id.*, p. 56, lines 11-15. The  
19      pilot program was fully subscribed as of June 2019, and currently over 5,200 customers  
20      are on a waitlist to participate in the program. *Id.*, p. 56, line 14 to p. 57, line 6.

21      **Q.    HOW DOES THE COMPANY PROPOSE TO DEPLOY AMI?**

22      A.    It is my understanding that the Company proposes to deploy AMI infrastructure  
23      throughout its service territory over a five-year period beginning in October 2021. *Id.*

1 at Exhibit LEB-3, p. 15. Customers who do not desire an AMI meter will have the  
2 ability to opt-out. Direct Testimony of Robert M. Conroy ("Conroy Direct"), p. 12,  
3 lines 3-4.

4 **Q. DOES WALMART OPPOSE THE COMPANY'S PROPOSAL TO INSTALL**  
5 **AMI?**

6 A. Walmart does not oppose the Company's proposal to install AMI across its service  
7 territory.

8

9 **IV. Walmart's Access to Interval Data Through the Company's MyMeter Customer Portal**

10 **Q. HOW DOES THE COMPANY PROPOSE TO IMPROVE A CUSTOMER'S**  
11 **ACCESS TO INTERVAL ENERGY USAGE DATA THROUGH**  
12 **DEPLOYMENT OF AMI?**

13 A. When a customer has an AMI meter, the Company will be able to retrieve interval data  
14 from smart meters located at customer sites. *See* Direct Testimony of Kent W. Blake  
15 ("Blake Direct"), p. 12, lines 4-10. The Company intends to give customers with AMI  
16 meters access to that interval data through its existing MyMeter online portal, which  
17 has historically only been available only to customers participating in the AMS Opt-in  
18 Program. *See* Direct Testimony of Eileen L. Saunders ("Saunders Direct"), p. 26,  
19 lines 8-11.

20 **Q. IS WALMART CURRENTLY ABLE TO ACCESS ITS INTERVAL DATA?**

21 A. No. Interval data is not currently available to Walmart for its stores and associated  
22 facilities because it does not have AMI meters.

1       **Q.    HOW DOES THE MYMETER ONLINE PORTAL ALLOW CUSTOMERS**  
2       **ACCESS TO THEIR DATA?**

3       A.    MyMeter allows customers to access their interval data along with the ability to  
4       download that data either by exporting it to a spreadsheet or through Green Button  
5       Download My Data ("DMD") enabled products. *See id.* at Exhibit ELS-1, p. 13.  
6       Additionally, in the future it appears that the Company plans to implement a similar  
7       Green Button Connect My Data ("CMD") functionality, which allows consumers to  
8       enable third-party access to their meter data.<sup>2</sup> *See* Exhibit ADT-2.

9       **Q.    IN GENERAL, WHAT DOES IT MEAN TO BE "GREEN BUTTON"**  
10       **COMPATIBLE?**

11       A.    The Green Button initiative was developed by the federal government to challenge  
12       utilities to provide customers' energy usage information in a downloadable, standard,  
13       and simple format.<sup>3</sup> Green Button is a data standard for enabling utility customers or  
14       third-parties access to energy usage information in a "consumer-friendly and computer-  
15       friendly format."<sup>4</sup> Essentially, a Green Button utility allows interval data to be accessed  
16       by simply clicking a "Green Button" located on the utility's website.

17       **Q.    IS CUSTOMER ACCESS TO INTERVAL ENERGY USAGE DATA**  
18       **IMPORTANT TO WALMART?**

19       A.    Yes.

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<sup>2</sup> *See* <https://www.greenbuttondata.org/cmd.html>

<sup>3</sup> [www.greenbuttonalliance.org/about#what](http://www.greenbuttonalliance.org/about#what).

<sup>4</sup> [www.greenbuttondata.org](http://www.greenbuttondata.org)

1       **Q.     PLEASE EXPLAIN.**

2       A.     Quite simply, easy and transparent access to interval data allows a customer to measure  
3           its energy usage, make adjustments to its energy consumption in response to the data,  
4           and reduce their bills. In addition, interval data allows customers to better target  
5           facilities for certain kinds of energy projects and facilitate measurement and  
6           verification of energy savings.

7       **Q.     WILL WALMART HAVE THE ABILITY TO ACCESS ITS INTERVAL DATA**  
8           **THROUGH THE MYMETER CUSTOMER PORTAL AS A RESULT OF AMI**  
9           **DEPLOYMENT?**

10      A.     Yes, it is my understanding that Walmart will have access to its interval data if the AMI  
11           deployment as proposed in the Company's Application is approved by the Commission.

12      **Q.     IF THE COMMISSION AWARDS THE COMPANY A CPCN TO DEPLOY**  
13           **AMI, DOES WALMART HAVE ANY RECOMMENDATIONS TO THE**  
14           **COMMISSION?**

15      A.     Yes. Walmart has recommendations regarding expanding customer access to interval  
16           data.

17      **Q.     PLEASE EXPLAIN.**

18      A.     Although the Company intends to give customers access to their interval data through  
19           MyMeter with the option to download that data via Green Button DMD functionality,  
20           it is not clear whether Walmart will be able to download interval data for all of its  
21           locations through a single download, or whether there are limitations on the number of  
22           meters and accounts that can be downloaded at one time. Furthermore, without Green

1 Button CMD functionality, Walmart cannot provide interval data access to a third-  
2 party.

3 **Q. HOW WOULD WALMART LIKE TO ACCESS ITS INTERVAL DATA?**

4 A. Ideally, Walmart would like to be able to obtain its interval data for all of its locations  
5 for both KU and LG&E through a single download. Additionally, Walmart would like  
6 the option to allow a third-party vendor to obtain that data directly from KU and LG&E  
7 via Green Button CMD functionality.

8 **Q. IS IT IMPORTANT TO WALMART THAT INTERVAL DATA BE ACCESSED**  
9 **THROUGH A SINGLE DOWNLOAD AND/OR THROUGH GREEN BUTTON**  
10 **CMD FUNCTIONALITY?**

11 A. Yes, it is. Without this automation, data retrieval becomes an inefficient, time-  
12 consuming process that hinders Walmart's ability to analyze and respond to its energy  
13 usage.

14 **Q. WHAT ARE THE BENEFITS OF GREEN BUTTON CMD FUNCTIONALITY?**

15 A. Walmart currently engages a third-party vendor to ingest interval energy usage data for  
16 its stores, distribution centers, and other facilities from a variety of applications  
17 maintained by different utilities across the United States. Green Button CMD  
18 functionality allows that third-party vendor to automatically "connect" and obtain  
19 Walmart's usage data directly from the Company without having to obtain that  
20 information from Walmart.

1       **Q.    HAS THE COMPANY INDICATED THAT IT INTENDS TO OFFER GREEN**  
2       **BUTTON CMD FUNCTIONALITY THROUGH MYMETER?**

3       A.    Yes. The Company indicated that it "planned" to implement Green Button CMD  
4       functionality in the future, but it provided no timeline or guarantee of deployment of  
5       Green Button CMD functionality. *See* Exhibit ADT-2.

6       **Q.    WHAT DOES WALMART RECOMMEND?**

7       A.    Walmart recommends that the Commission require the Company to include in its AMI  
8       deployment the option for a customer to retrieve and download its energy usage interval  
9       data for multiple accounts, up to and including all accounts, through one datafile.  
10      Walmart also recommends that the Commission require the Company to make  
11      customer interval data available in the Green Button CMD format for the Company's  
12      commercial and industrial customers. The steps for becoming CMD compatible are  
13      detailed in the "Green Button Connect My Data (CMD)" Data Sheet found under Green  
14      Button *Connect My Data (CMD)* Testing at [www.Greenbuttonalliance.org/testing](http://www.Greenbuttonalliance.org/testing).

15      **Q.    WOULD        COMMISSION        APPROVAL        OF        WALMART'S**  
16      **RECOMMENDATIONS FURTHER THE COMPANY'S GOALS AS STATED**  
17      **IN ITS PETITION?**

18      A.    Yes. The Company has stated that a goal of its AMI deployment is to "capture more  
19      detailed and near real-time energy usage information that will permit customers to  
20      become better informed." *See* Application, p. 11. For commercial and industrial  
21      customers who consume large amounts of electricity across multiple accounts,  
22      providing these customers with access to their energy usage data on an interval basis  
23      and through one online access point, combined with the ability to download this data

1            automatically, gives the customer the critical information needed to adjust its energy  
2            usage at times when reduced energy use can be most impactful for the individual  
3            customer and for the grid overall.

4

5    **V. Recommendations**

6    **Q.    WHAT ARE WALMART'S RECOMMENDATIONS TO THE COMMISSION?**

7    A.    Walmart's recommendations to the Commission are as follows:

8            1) The Commission should require the Company to include in MyMeter the option  
9            for a customer to retrieve and download its energy usage interval data for  
10           multiple accounts, up to and including all accounts, through one datafile; and

11           2) The Commission should require KU to take the steps necessary to become  
12           Green Button CMD compatible.

13    **Q.    DOES THIS CONCLUDE YOUR TESTIMONY?**

14    A.    Yes.

VERIFICATION

In the Matter of:

ELECTRONIC APPLICATION OF )  
KENTUCKY UTILITIES COMPANY FOR )  
AN ADJUSTMENT OF ITS ELECTRIC )  
RATES, A CERTIFICATE OF PUBLIC )  
CONVENIENCE AND NECESSITY TO )  
DEPLOY ADVANCED METERING )  
INFRASTRUCTURE, APPROVAL OF )  
CERTAIN REGULATORY AND )  
ACCOUNTING TREATMENTS, AND )  
ESTABLISHMENT OF A ONE-YEAR )  
SURCREDIT )

CASE NO. 2020-00349

STATE OF ARKANSAS )  
 )  
COUNTY OF WASHINGTON )

The undersigned, Andrew D. Teague, being duly sworn, deposes and says that he is Senior Manager, Energy Services for Walmart Inc., and that he has personal knowledge of the matters set forth in the foregoing testimony, and that the answers contained herein are true and correct to the best of his information, knowledge, and belief.

  
\_\_\_\_\_  
Andrew D. Teague

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 9 day of March 2021.

 (SEAL)  
\_\_\_\_\_  
Notary Public

My Commission Expires: August 31, 2028

ALEXIS TAVARES  
BENTON COUNTY  
NOTARY PUBLIC – ARKANSAS  
My Commission Expires Aug. 31, 2028  
Commission No. 12705010

**COMMONWEALTH OF KENTUCKY**  
**BEFORE THE PUBLIC SERVICE COMMISSION**

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<b>ESTABLISHMENT OF A ONE-YEAR</b>	)	
<b>SURCREDIT</b>	)	
	)	

**EXHIBITS OF**  
**ANDREW D. TEAGUE**  
**ON BEHALF OF**  
**WALMART INC.**

**COMMONWEALTH OF KENTUCKY**  
**BEFORE THE PUBLIC SERVICE COMMISSION**

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<b>SURCREDIT</b>	)	
	)	

**EXHIBIT ADT-1 OF**  
**ANDREW D. TEAGUE**  
**ON BEHALF OF**  
**WALMART INC.**

# Andrew D. Teague, CEM

Senior Manager, Energy Services

Walmart Inc.

Business Address: 2608 SE J Street, Bentonville, Arkansas 72716

Business Phone: (479) 258-6267

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## EXPERIENCE

February 2019 – Present

Walmart Inc., Bentonville, AR

Senior Manager, Energy Services

March 2011 – March 2019

AGEISS, Inc., Fort Sill, OK

Energy Conservation Program Support

## EDUCATION

2010 University of Indiana

MPA, Environmental Policy and Natural  
Resource Management; Sustainable  
Development

2008 Emory University

B.S., Environmental Studies

2006 Oxford College of Emory University

A.A.

## PRESENT MEMBERSHIPS

Association of Energy Engineers, Member

## INDUSTRY TRAINING

- 2020 Practical Regulatory Training for the Electric Industry, Center for Public Utilities, New Mexico State University College of Business
- 2020 IPU Accounting and Ratemaking Course, Michigan State University

## KEY ACCOMPLISHMENTS

Oversaw the roll out of the Meter Data Management System at Fort Sill.

Performed meter audits and surveys at Joint Base San Antonio.

Managed meter data for natural gas, electric, wastewater, and water for Joint Base San Antonio and Fort Sill. Developed customer utility rates and managed billing for Joint Base San Antonio and Fort Sill.

Supported utility management for natural gas, electric, wastewater, and water billing with city, public utility, and privatized utility providers.

**Walmart Inc.**  
**Exhibit ADT-1**  
**Kentucky Public Service Commission Case No. 2020-00349**

Supported energy savings performance contract endeavors at Fort Sill and Joint Base San Antonio, including a \$143 million contract.

Audited historic energy savings performance contracts for compliance for the Air Force Civil Engineering Center.

Maintained and expanded Walmart's Rate Engine with the addition of dozens of utilities' and distributed generation providers' interval data and cataloging and modeling hundreds of different utility rates.

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<b>SURCREDIT</b>	)	
	)	

**EXHIBIT ADT-2 OF**  
**ANDREW D. TEAGUE**  
**ON BEHALF OF**  
**WALMART INC.**

**KENTUCKY UTILITIES COMPANY**

**Response to Walmart Inc.'s Supplemental Request for Information  
Dated February 5, 2021**

**Case No. 2020-00349**

**Question No. 1**

**Responding Witness: Eileen L. Saunders**

- Q-1. Please refer to the Direct Testimony of Eileen L. Saunders. At Ex. ELS-1, p. 13, the document states in reference to tools available to customers with an AMI meter that customers will be able to "[d]ownload or export data to spreadsheets to Green Button Download enabled products to facilitate additional review or analysis." Further, at Ex. ELS-2, p. 12, the Company states that it will create a portal that "[p]rovides customers the ability to download usage data in various formats, including Green Button format, which is the national standard."
- a. Do the phrases "Green Button Download" or "Green Button format" as set forth in the exhibits to Ms. Saunders' testimony mean a broader system that would enable "Connect My Data," or does the Company only intend to provide Green Button "Download My Data" capabilities?
- b. Is there a plan to enable third-party access to customer usage data such as through API or through Green Button Connect My Data?
- A-1. Green Button Download and Green Button Connect My Data are two separate capabilities as shown below and discussed in more detailed on the Green Button website: <https://www.greenbuttondata.org/residential.html>



- a. "Green Button Download" and "Green Button format" are both in relation to the existing Green Button "Download My Data" capability, which is currently available for customers with an AMI meter through MyMeter web portal. If the Companies' AMI proposal is approved, "Download My Data" will be available to any customer receiving an AMI meter upon meter installation.

**Walmart Inc.**  
**Exhibit ADT-2**

**Kentucky Public Service Commission Case No. 2020-00349**

**Page 2 of 2**

**Response to Question No. 1**  
**Page 2 of 2**  
**Saunders**

Additionally, the Companies plans to implement Green Button “Connect My Data” to give customers additional flexibility to use the usage data for their unique needs.

- b. Yes, see the response to part a. Additionally the Companies currently support enabling third-party access by allowing customers to identify third-parties and provide them with a unique account to access the MyMeter portal. This functionality is shown on page A-12 of Exhibit ELS-1.